

## CLAIMS

- 1 1. A networked computer system comprising:
- 2 (A) a first computer system comprising:
- 3 a first processor;
- 4 a first memory coupled to the first processor;
- 5 a first data structure residing in the first memory;
- 6 a first application residing in the first memory;
- 7 a trigger mechanism residing in the first memory and executed by the first
- 8 processor that detects a change to the first data structure and, in response, invokes
- 9 the first application;
- 10 a software tool residing in the memory that is invoked by the first
- 11 application to retrieve information from the data structure and to format the
- 12 information into a defined format;
- 13 (B) a secure communication mechanism that provides encoded messages between
- 14 the first computer system and a second computer system, the secure communication
- 15 mechanism transmitting the formatted information from the first computer system to the
- 16 second computer system;
- 17 (C) the second computer system comprising:
- 18 a second processor;
- 19 a second memory coupled to the second processor;
- 20 a second data structure residing in the memory;
- 21 a second application residing in the second memory, the second
- 22 application receiving the formatted information from the secure communication
- 23 mechanism;

(claim 1 continued)

24                   a parser residing in the second memory, the parser parsing the formatted  
25                   information and generating therefrom second information, the parser adding the  
26                   second information to the second data structure;  
27                   the second application processing the second information in the second  
28                   data structure, taking action based on the second information, and generating a  
29                   response to the first computer system via the secure communication mechanism.

1    2.       The networked computer system of claim 1 wherein the defined format comprises  
2            an XML document.

1    3.       The networked computer system of claim 1 wherein the action taken depends on  
2            the second information and business logic for the second computer system.

1    4.       The networked computer system of claim 1 further comprising a front-end  
2            application coupled to the first computer system that allows a user to cause a change in  
3            the first data structure.

- 1     5.     A networked computer system comprising:
- 2           (A) a first computer system comprising:
- 3                 a first processor;
- 4                 a first memory coupled to the first processor;
- 5                 a first data structure residing in the first memory;
- 6                 a first application residing in the first memory;
- 7                 a trigger mechanism residing in the first memory and executed by the first
- 8     processor that detects a change to the first data structure and, in response, invokes
- 9     the first application;
- 10                 a software tool residing in the memory that is invoked by the first
- 11     application to retrieve information from the data structure and to format the
- 12     information into an eXtensible Markup Language (XML) document according to
- 13     information contained in a mapping file that defines the structure and content of
- 14     the XML document;
- 15                 a response mechanism residing in the first memory and executed by the
- 16     first processor that processes at least one response from a second computer
- 17     system;
- 18           (B) a front-end application coupled to the first computer system that allows a user
- 19     to cause a change in the first data structure;
- 20           (C) a virtual private network that provides encoded messages between the first
- 21     computer system and the second computer system, the virtual private network
- 22     transmitting the XML document from the first computer system to the second computer
- 23     system;
- 24           (D) the second computer system comprising:
- 25                 a second processor;
- 26                 a second memory coupled to the second processor;
- 27                 a second data structure residing in the memory;

(claim 5 continued)

28                   a second application residing in the second memory, the second  
29                   application receiving the XML document via the virtual private network;  
30                   an XML parser residing in the second memory, the XML parser parsing  
31                   the formatted information and generating therefrom second information;  
32                   the second application performing the steps of:  
33                         adding the second information to the second data structure;  
34                         processing the second information in the second data structure to  
35                   determine whether the second information satisfies at least one automatic  
36                   approval criterion;  
37                         if the second information does not satisfy the at least one automatic  
38                   approval criterion, notifying a human agent that manual processing is  
39                   required;  
40                         formatting a response XML document indicating status; and  
41                         transmitting the response XML document to the response  
42                   mechanism via the virtual private network.

1        7.        The method of claim 6 wherein step (3) comprises the step of formatting the first  
2        information into an XML document.

1        8.        The method of claim 6 wherein steps (2) and (3) comprise using an XML  
2        Lightweight Extractor (XLE) to extract the first information from the first data structure  
3        and to format the first information into an XML document that satisfies a mapping file  
4        that defines the structure and content of the XML document.

1        9.        The method of claim 6 wherein the business logic includes at least one criterion  
2        for automatically processing the formatted first information and at least one criterion for  
3        manually processing the formatted first information.

- 1 10. The method of claim 6 further comprising the step of:  
2 (8) the first computer system generating feedback to a user that caused the change  
3 to the first data structure in step (1).
- 1 11. The method of claim 10 wherein step (8) comprises the step of sending a message  
2 to the user via the front-end application.
- 1 12. The method of claim 10 wherein step (8) comprises the step of sending an e-mail  
2 message to the user.

1 13. A method for communicating between a first computer system and a second  
2 computer system, the method comprising the steps of:  
3 (1) a user using a front-end application to cause a change to a first data structure  
4 in the first computer system;  
5 (2) detecting the change to the first data structure;  
6 (3) using a XML Lightweight Extractor (XLE) to extract the first information  
7 from the first data structure and to format the first information into an XML document  
8 that satisfies a mapping file that defines the structure and content of the XML document;  
9 (4) transmitting the XML document from the first computer system to the second  
10 computer system via a virtual private network that provides encoded messages between  
11 the first computer system and the second computer system;  
12 (5) parsing the XML document and generating therefrom second information;  
13 (6) processing the second information to determine whether the second  
14 information satisfies at least one automatic approval criterion;  
15 (7) if the second information does not satisfy the at least one automatic approval  
16 criterion, notifying a human agent that manual processing is required;  
17 (8) formatting a response XML document indicating status; and  
18 (9) transmitting the response XML document to the first computer system via the  
19 virtual private network.

1 14. The method of claim 13 further comprising the step of:  
2 (10) the first computer system generating feedback to the user.

1 15. The method of claim 14 wherein step (10) comprises the step of sending a  
2 message to the user via the front-end application.

- 1 16. The method of claim 14 wherein step (10) comprises the step of sending an e-mail
- 2 message to the user.

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1 17. A method for doing business comprising the steps of:  
2 monitoring for changes a first data structure in a first computer system;  
3 detecting a change to the first data structure;  
4 in response to the detected change in the first data structure, extracting first  
5 information from the first data structure;  
6 formatting the first information;  
7 sending the formatted first information to the second computer system for  
8 processing via a secure communication mechanism that provides encoded messages  
9 between the first computer system and the second computer system;  
10 parsing the formatted first information;  
11 acting upon the parsed information according to business logic residing in the  
12 second computer system; and  
13 generating a response to the first computer system that indicates status of the  
14 processing of the data.

1 18. A method for an insurance company that has a first computer system to do business  
2 with an insurance underwriter that has a second computer system, the method comprising  
3 the steps of:  
4 a trigger program executing on the first computer system monitoring a first  
5 database in a first computer system for changes;  
6 the trigger program detecting a change to the first database, the change  
7 corresponding to a new application for an insurance policy;  
8 in response to the detected change in the first database, invoking a first software  
9 application on the first computer system to extract first information from the first  
10 database, the first information corresponding to information in the new application for an  
11 insurance policy;  
12 the first software application formatting the first information into an XML  
13 document according to information contained in a mapping file that defines the structure  
14 and content of the XML document;  
15 the first software application sending the XML document to a second application  
16 executing on the second computer system via a virtual private network that provides  
17 encoded messages between the first computer system and the second computer system;  
18 the second software application parsing the XML document;  
19 the second software application acting upon information in the parsed XML  
20 document according to insurance underwriting logic residing in the second computer  
21 system; and  
22 the second software application generating a response XML document and  
23 sending the response XML document to the first computer system that indicates whether  
24 the new application for the insurance policy is approved.

